AGENCY FOR INTERNATIONAL DEVELOPMENT
PPC/CDIE/DI REPORT PROCESSING FORM

ENTER INFORMATION ONLY IF NOT INCLUDED ON COVER OR TITLE PAGE OF DOCUMENT

1. Project/Subproject Number
497-0357

2. Contract/Grant Number
497-C-00-98-00045-00

3. Publication Date
November 1994

4. Document Title/Translated Title
Policy Note: Indonesian Sugar Policies and Contrasts with Other Asian Countries

5. Author (s)
1. Stephen L. Magiera
2.
3.

6. Contributing Organization (s)
Nathan/Checchi Joint Venture/PEG Project

7. Pagination
10

8. Report Number
PEG 21

9. Sponsoring A.I.D. Office
ECG, USAID/Jakarta

10. Abstract (optional - 250 word limit)

11. Subject Keywords (optional)

1. Indonesia	4.
2. Sugar	5.
3. Policies	6.

12. Supplementary Notes

13. Submitting Official
C. Stuart Callison, Chief of Party

14. Telephone Number
011-62-21-520-1047

15. Today's Date
31 August 2001

…...………………………………………..……………DO NOT write below this line……………………………………..……………

16. DOCID

17. Document Disposition
DOCRD [ ] INV [ ] DUPLICATE [ ]

AID 590-7 (10/88)

POLICY NOTE:
INDONESIAN SUGAR POLICIES AND CONTRASTS WITH OTHER ASIAN COUNTRIES

Stephen L. Magiera[1]
Harvard Institute For International Development

November 1994

Note: This paper presents various discussion points and tables that were used during discussions of Indonesian sugar policy reforms in the mid-1990s.

---

[1] Currently with the Partnership for Economic Growth (PEG), International Trade Specialist, Ministry of Industry and Trade, Republic of Indonesia, April 2000. PEG is a USAID-funded Project. The views expressed in this report are those of the author and not necessarily those of USAID, the U.S. Government or the Government of Indonesia.

POLICY NOTE:
INDONESIAN SUGAR POLICIES
AND CONTRASTS WITH OTHER ASIAN COUNTRIES

Introduction. Indonesia was once one of the largest and most efficient sugar exporters in the world. Although sugar production has doubled since 1975, Indonesia now imports several hundred thousand metric tons of sugar annually and its industry is considered inefficient and in need of reform. The most telling sign of inefficiency is the steady decline in sucrose yields over the past decades.

Sugar is one of the most regulated commodities in the Indonesian food system. The government provides subsidized inputs to farmers, maintains informal production targets in sugar growing areas, owns and operates most of the mills, regulates prices at the farm-gate and throughout the marketing chain, and controls distribution channels.

Extensive government involvement in the industry provides a long list of deregulatory options. These range from marginal changes in existing policy instruments to complete deregulation. Partial deregulatory options include: the privatization of state-owned mills, reform of the administered price system, deregulation of the import licensing system, and deregulation of distribution channels.

There are many vested interests against reform of the sugar industry. In addition, the Government (with World Bank support) has invested heavily in sugar mills and many officials view self-sufficiency as an important policy goal. Other countries also distort their markets and world sugar prices are artificially low. It may be the case that sugar is being "dumped" on the Indonesian market.

Administered Prices and Nominal Protection. ***Sugar prices are administered by the government and are built-up from the farm level. The price formula covers returns to farmers, mills, distributors, taxes, and handling costs (Table 1).***

- Although nominal protection for sugar is quite high, most of the benefits may accrue to mills and distributors rather than to farmers.

- Until recently, the ex-mill price for sugar was the same for all grades. There is now a premium for one high quality grade, but it is unlikely that the administered price structure reflects the full range of grades needed by end-users. This leads to a lower average quality sugar on the domestic market.

Import Licensing System & Bapeksta. ***BULOG is the sole importer of sugar but uses appointed agents to carry out imports.***

- These agents are reportedly paid enormous commissions. An alternative method of allocating import licenses would be an auction system.

- Sugar consumption of even the largest food processors is relatively small and companies find it administratively difficult to use Bapeksta. However, large agro-processors are able to obtain discounts on imported sugar from BULOG and have an advantage over small processors.

BULOG's Role in Price Stabilization. ***In order to stabilize prices, BULOG is involved in both the storage and distribution of sugar.***

- BULOG also stabilizes rice prices, but its involvement in the rice market may be much less than for sugar. Thus, there may be ways to expand the private sector's role in the marketing and storage of sugar.

Distribution Channels. ***On Java, sugar distribution is handled by BULOG and licensed wholesalers. Off-Java, private mills are allowed to market a portion of their sugar directly without going through BULOG (Table 2).***

- Licensed distribution channels give rise to excessive marketing costs and to "brief-case" distributors who sell their commodity allocations and no longer deal in the commodity themselves. Also, sugar is rationed throughout the marketing chain and small-scale processors often bear the full brunt of occasional supply shortages.

Consumer Taxes. ***Nominal sugar protection in Indonesia varies from 30 to 100 percent and represents a significant tax on sugar consumers.***

- Most of the tax probably falls on households since sugar consumption by the agro-processing sector is relatively small. Nevertheless, sugar is used in a wide variety of processed products and high prices may be detrimental to the development of a competitive agro-processing sector. This sector is emphasized in Repelita VI as a source of employment growth in rural areas.

- Government regulatory policies may lead to a lower average quality sugar. This is detrimental to the agro-processing industry, particularly producers of brand name products who need high quality refined sugar. Indonesia has no refining capacity and all refined sugar is imported.

- High sugar prices in Indonesia have led to a significant rise in the production and consumption of cane sugar substitutes and reportedly to widespread smuggling of refined sugar from other S.E. Asian countries.

Sugar Production and Employment. ***Sugar production issues are very complex, depending on the organizational structure in various regions of Indonesia -- state mills, private mills, smallholder intensification, state plantation, private plantation).***

- Recent studies on the profitability of cane production on Java indicate that at current prices, cane producers on irrigated wetlands would shift to other crops if permitted to do so. Thus, these farmers would benefit from deregulation even if sugar prices are lowered. The employment impacts of reduced sugar production on Java are uncertain and depend on labor-use in sugar production *vis-a-vis* rice and other crops.

- Current government policy is to move sugar production off-Java. An analysis of this policy would require a complete cost/benefit analysis of proposed production sites and is beyond the scope of this study. However, much information pertinent to the policy can be obtained from surveys of current production systems off-Java and an examination of the sugar industry in Thailand.

<u>International Comparisons</u>. ***Nearly all countries regulate their sugar markets and the world sugar market is extremely distorted.***

- Indonesia argues that the policies of other countries are responsible for low world prices. While this is not a valid economic argument against reform, it needs to be addressed. International price comparisons would permit an assessment of Indonesia's competitiveness vis-a-vis other countries, whether Indonesia taxes its agro-processing sector excessively, and whether sugar is being "dumped" on the Indonesian market.

- Thailand has emerged as a major world sugar exporter and is now Indonesia's principal supplier. Thai costs of production are two-thirds those of Indonesia even though Thailand protects its sugar market and has much lower sucrose yields. There are several possible reasons for Thailand's comparative advantage: 1) the low opportunity cost of land in Thai growing areas; 2) less intensive cultivation practices; 3) private ownership of the mills; and 4) a market oriented system for linking the harvesting of cane to milling. An examination of the Thai industry would provide useful insights on possible reforms in Indonesia.

Sugar Policies and Markets in Other Asian Countries

There are considerable differences in the sugar markets of Thailand, Malaysia and the Philippines. These differences reflect government policies, the type of farming system that is used to grow sugar, and whether a country is an exporter or importer of sugar (Tables 3 and 4). There are several characteristics of these markets that might be relevant to Indonesia:

1) ***In contrast to Indonesia with its heavy state involvement, sugar milling in these countries appears to be dominated by the private sector***.

2) ***The cost of producing one ton of sugar on a hectare of land in Thailand is two thirds that in Indonesia, in spite of the fact that Thailand has much lower yields.*** Low sugar yields in Thailand may be due to extensive production practices with fewer inputs. Under certain conditions, this may be more efficient that the intensive growing techniques on Java. Also, Thai sugar is apparently grown in many areas where there are few alternative crops and where the opportunity cost of land is low. It is possible, therefore, that *Indonesia might also be competitive if sugar were grown off Java using similar production practices*.

3) Of the three countries, only Thailand exports to Indonesia. ***Thai export prices ($275 per ton) are 40 percent below domestic wholesale prices.*** High domestic prices are maintained through a ban on imports and restrictions on the amount of sugar that can be sold domestically. The fact that Thailand exports at such low prices also suggests low production costs.

4) ***In Thailand, independent middlemen arrange the timing of the harvest and the delivery of cane to the mills***. The harvesting of cane and its delivery to the mills must be optimally timed in order to ensure maximum sucrose yields. Also, sugar cane must be milled continuously throughout the harvesting period if the mills are to operate efficiently. In Indonesia, the inefficient organization of farmers and the mills under the TRI system has

been a perennial problem. Although we do not know how well the Thai system works, it is an alternative to the Indonesian system.

5) All three countries intervene in their sugar markets. However, ***only Thailand appears to follow a policy similar to Indonesia's of setting prices at all levels of the marketing chain***.

- In the Philippines, the Government can influence prices through the allocation of quotas for the domestic and export markets. However, the Government no longer sets price targets. *Prices at all levels of the marketing chain are apparently market determined.*

- In Malaysia, the Government sets retail price targets and controls prices indirectly through variable import quotas. However, *margins and prices at the farm level are market determined.*

- In Thailand, the Government appears to have considerable control over prices at all stages of the marketing chain. Retail prices are controlled indirectly through restrictive domestic quotas. Farm and mill prices are also fixed by the Government, but are adjusted by premiums and discounts that reflect actual market conditions.

6) ***All three countries maintain domestic sugar prices that are considerably above world prices (Table 5)***. Price comparisons across countries are made difficult by differences in sugar quality and by the different types of taxes and fees that are incorporated into the price structure. Nevertheless, the final retail price indicates the ultimate cost of Government policies to consumers. *In 1991, Indonesia's retail for sugar ($570 per ton) was well above prices in Thailand ($480 per ton) and Malaysia ($440 per ton).* The retail price in the Philippines was $670 per ton, but this may be the price for highly refined sugar. Highly refined sugar is apparently not available on Indonesian consumer markets.

TABLE 1: ADMINISTERED PRICE SYSTEM FOR SUGAR

Retail Target Price (Harga Jual)		1335 Rp/Kg
Taxes	30 Rp/kg	
Bags (est)	21 Rp/Kg	
Distributor, Wholesale, Retail Margins	297 Rp/kg	
Ex-mill Price		987 Rp/Kg
Excise Tax (4%)	32 Rp/Kg	
VAT (10%)	82 Rp/Kg	
KUD Management Fee	5 Rp/Kg	
Bank Cost	70 Rp/Kg	
Bulog Management Fee	5 RP/KG	
Govt. Special Project Fee	1 Rp/Kg	
Provenue Price (2.4 x Floor Price for Unhusked Rice)		792 Rp/Kg
Factory Share (38%)	301 Rp/Kg	
Farmer Share (62%)	491 Rp/Kg	

Source: Minister of Finance Decree No. 439A/kmk. 013/1992, April 29, 1992

TABLE 2: COMMODITY MARKETING SYSTEMS IN INDONESIA

COMMODITY	APPROX. NUMBER OF PRODUCERS	DISTRIBUTOR S DETERMINED BY	ALLOCATIONS DETERMINED BY	IMPORTS DETERMINED BY	LOCAL GUIDE PRICE	MARGIN (Percent of Retail)
Sugar	67	Bulog	Bulog	Bulog	Yes	23
Wheat Flour	3	Bulog	Bulog	Bulog	Yes	25
Soymeal	1	Market (Formerly Asbimti)	Market	Feed Manufacturers (Local Content Rule)	No	
Rice	Thousands	Market	Market	Bulog	Yes	12
Soybean (Food Market)	Thousands	Market	Market	Bulog	No?	
Corn	Thousands	Market	Market	Market (Formerly Bulog)	No	
Cement	9	Cement Companies	Government & Producers	Market (State-Owned Companies)	Yes	
Urea	5	Pusri	Pusri	No Imports	Yes	43

TABLE 3: SUGAR TRADE POLICIES IN SELECTED ASIAN COUNTRIES

COUNTRY	THAILAND	PHILIPPINES	MALAYSIA
TRADE SITUATION	Large net exporter of sugar.	Small net exporter of raw sugar. Currently, all exports from the Philippines are to the United States under the U.S. sugar quota program.	Large net importer of raw sugar. Because of the large size of Malaysia's mills and its small domestic market, Malaysia exports significant quantities of refined sugar.
IMPORT POLICIES	Imports are banned.	Tariffs of 50 percent.	Tariffs of zero for raw sugar and 5 percent for refined sugar. There is also a surcharge on refined sugar of about 25 percent. Restrictive import licenses are used to regulate the volume of imports and domestic prices. Imports of raw sugar are apparently arranged by refineries. Since import prices are below domestic prices, sugar refineries obtain the rents from import controls.
EXPORT POLICIES	Quotas are allocated for the domestic market, long-term export market, and spot export market. Exports are handled by four trading companies	Quotas are allocated for the domestic market, for the export market, and for a reserve stock. Export quotas are used to distribute the right to U.S. import quotas. All quotas are tradable.	None. Anti-Dumping duties have been levied by New Zealand on Malaysian exports of refined sugar.

TABLE 4: THE SUGAR MARKET IN SELECTED ASIAN COUNTRIES

COUNTRY	THAILAND	PHILIPPINES	MALAYSIA
FARMING SYSTEM	Sugar appears to be grown using extensive production practices. There are few alternative crops in some growing areas.	Mostly plantation.	Mostly plantation.
MILLING INDUSTRY	Large number of private mills. The Government controls the number of mills.	Thirty-nine mills. Approximately 70% have equipment dating back to the 1920s. There are nine sugar refineries of which three are Government-owned.	Two large refineries that are integrated with plantations, and two non-integrated refineries. All refineries process large volumes of imported raw sugar in order to achieve an efficient scale of operation.
FARM-MILL LINKAGE	In some areas, middlemen arrange contracts between growers and the mills. Middlemen also arrange the timing and transportation of cane to the mills. Growers belong to associations, 18 in total, which represent them in negotiations with the sugar mills and the Government.	The sugar mills apparently negotiate directly with growers.	Many plantations are integrated with refineries.
FARM PRICE	The Government has set a 70/30 allocation between growers and the mills. Actual grower returns depend on the sucrose content of the cane.	Market Determined. Growers apparently receive an in-kind payment that averages 65 percent of the raw sugar produced by the mills.	None for integrated plantations and refineries.
MILL PRICE	The Government sets a base price at the start of the growing season. The base price is adjusted annually according to world market prices. Actual returns reflect premiums and discounts that depend on actual prices during the growing season.	Market Determined.	Market Determined.
RETAIL PRICE	Controlled by the Government.	Domestic sugar prices were deregulated in 1990 and are now market determined.	Controlled by the Government.

Table 5: PRICES AND MARGINS FOR SUGAR IN SELECTED COUNTRIES (1991)

Country	Raw Material	Sugar Price to Grower $ per Ton	Consumer Price $ per Ton	Margin $ per Ton
Guatemala	Cane	150	280	130
India	Cane	150	460	310
Brazil	Cane	150	500	350
Domin. Rep.	Cane	160	620	460
South Africa	Cane	170	670	500
Australia	Cane	180	810	630
Thailand	Cane	190	480	290
Pakistan	Cane	190	560	370
Kenya	Cane	210	570	360
Argentina	Cane	210	600	390
Mexico	Cane	220	580	360
Philippines	Cane	220	670	450
Indonesia	Cane	220	570	350
Columbia	Cane	240	370	130
Canada	Beets	260	380	120
Turkey	Beets	260	660	400
France	Beets	270	1150	880
United States	Both	310	960	650
Sweden	Beets	330	1140	810
Malaysia	Cane	NA	440	NA
Switzerland	Beets	600	1220	620
Japan	Beets	740	1820	1,080

Source: USDA
NOTE: It is not certain that prices in this table are comparable, particularly at the retail level. For example, the Indonesian retail price is for plantation white. In many other countries, the retail price is for highly refined sugar.